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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,795	02/12/2001	Malcolm F. Ruppert	60,130-1004	6956

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EXAMINER

VANAMAN, FRANK BENNETT

ART UNIT	PAPER NUMBER
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3618

DATE MAILED: 04/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/781,795

Applicant(s)

RUPPERT ET AL.

Examiner

Frank Vanaman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-41, 43-46, 48-55, 57 and 58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 41, 43-46, 48-50 and 58 is/are allowed.
- 6) ☒ Claim(s) 23-27, 36, 38 and 39 is/are rejected.
- 7) ☒ Claim(s) 28-35, 37, 40, 51-55 and 57 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Reopening of Prosecution

1. In view of the brief filed on Jan 26, 2004, and the interview of Oct. 10, 2003, PROSECUTION IS HEREBY REOPENED.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Status of Claims

2. Claims 23-41, 43-46, 48-55, 57 and 58 are pending.

Claim Rejections - 35 USC 102

3. The text of those sections of Title 35 US Code not included in this action can be found in a prior Office Action.

4. Claims 23-27, 36, 38 and 39 are rejected under 35 USC 102(b) as being anticipated by Van Dest et al. (FR 2,507,550, cited by applicant). Van Dest et al. teach a driving unit assembly including first and second wheels (1) mounted on hubs (2, and the un-referenced portions extending between 2 and wheel 1 - see sectional view, figure 1) which rotate about a lateral axis of rotation (axles 22, co-linear with the connection between 19 and 8), first and second upwardly extending motors (11) mounted on a common axle housing (23) driving first and second gear sets (13, 14, 15) including a pinion and ring gear pair (13, 14) both of which are mounted so as to rotate with the sun gear (8), when the wheel hub rotates (through the remaining gear elements 18, 19), a longitudinal motor axis (co-linear with the center of motor output shaft 12) being transverse and perpendicular (in this case, orthogonal) to the lateral rotation axis, each motor's longitudinal axis being spaced from the other, and first and second planetary gear sets (ring gear 6, planet gears 7, sun gear 8, collectively referred to by numeral 5) incorporated into the wheel hubs (e.g., 2, note, for example, in figure 1) and driven by

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the respective first and second gear sets, further including plural gear boxes (3, 10) for housing the first and second gear sets, the motors being mounted to the gear boxes (figure 2), the planetary gears being incorporated into the gear boxes (at 3).

Allowable Subject Matter

5. Claims 41, 43-46, 48-50 and 58 are allowed
6. Claims 28-35, 37, 40, 51-55 and 57 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Comments

7. In the Interview Summary of Oct. 10, 2003, the examiner noted that applicant's comments concerning the reference to Roe, which was previously applied to certain claims, were persuasive, and that the rejections based on the reference to Roe would be withdrawn, and with this Office Action, those rejections are withdrawn.
8. Applicant's comments concerning the combination of the references to Austin, Quartullo and Van Dest et al., as applied in combination against claim 48, have been carefully considered, and again the examiner agrees with applicant's assertions. Claim 48 is deemed allowable, along with its dependent claims 49, 50 and 58.
9. Applicant's comments concerning the reference to Van Dest are treated as follows. As regards applicants arguments directed to claim 28, the examiner agrees. The fixed position of the ring gear does not result in a driving of the hub, as is set forth in the claim. As regards Van Dest's motors, the examiner disagrees, these motors define longitudinal axes to the breadth currently claimed. That they are vertical is also true. There is no requirement that a longitudinal axis be non-vertical, and as such the interpretation is not deemed unreasonable. It appears that applicant may be referring to a particular quality of these longitudinal axes which is not actually recited in the claims. It also appears that applicant's definition of "longitudinal" as regards an axis associated with the motor as set forth would be contradictory to applicant's own embodiment as shown in figure 6.

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Limitations not in the claims

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., ***) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As regards reading unclaimed limitations from the specification into the claims

From MPEP 2111:

During patent examination, the pending claims must be given their broadest reasonable interpretation consistent with the specification. In *re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In *re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969) The court explained that "reading a claim in light of the specification, to thereby interpret limitations explicitly recited in the claim, is a quite different thing from 'reading limitations of the specification into a claim,' to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the claim." The court found that applicant was advocating the latter, i.e., the impermissible importation of subject matter from the specification into the claim.). See also *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997)

10. As regards the relationship of the longitudinal axes as being transverse to the lateral axis of rotation of the wheels, applicant is reminded that the term transverse is given broadest reasonable interpretation, namely that it forms an orthogonal relationship with an element to which it is deemed transverse, certainly in this case, the longitudinal axes of the motors are orthogonally oriented with respect to the lateral axis of rotation. Again, there is no requirement that a transverse element be non-vertical, nor does there appear to be any explicit requirement that an element transverse to another be in the same plane. As regards applicant's assertion that the planetary gear set of Van Dest is

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not inside the wheel hub, the examiner disagrees. The planetary gear set is referenced in general as 5, which is surrounded in a radial manner by the hub 2 and the un-referenced hub portion which supports wheel 1, which can be ascertained by a perusal of figure 1. Applicant's difficulty in determining how a planetary gear set fits within both a wheel hub and the gear box (3) is noted. Again, referring to figure 1, applicant may desire to note that a substantial portion of the hub, which serves to enclose the planetary gear set, is also positioned within the gear box portion 3, and as such, the planetary gear set is positioned within both these elements to the extent currently claimed. As regards the plural gear boxes, please note that one set of gears (13, 14, 15) fits in a completely closed portion (lacking its own reference numeral) within box 10, only one of which is shown in the section of figure 1 (towards the top of the figure). The second motor (e.g., that motor which is shown in plan view, and not in section, in figure 1) also drives a gear set (13, 14, 15- note the schematic of figure 3), which gears are installed in a symmetrically opposed closed portion, such that both sets of gears 13, 14, 15 are installed in separate gear boxes within the overall enclosure 10. Applicant's comments directed to the distinction between a pinion and ring gear and a pair of conical gears are noted, however applicant is reminded that in order for a ring and pinion gear as disclosed by applicant to properly mesh and thus transmit force, they must both have conical tooth configurations. Applicant is additionally reminded that there is no express requirement in the commonly held definition of a ring and pinion gear one to be of a different size than the other, although in some cases they are indeed of different sizes. Again it appears as though applicant is arguing limitations which are not positively claimed, and this condition has been addressed above (see the portions headed "Limitations not in the claims" and "As regards reading unclaimed limitations from the specification into the claims"). As regards gear 14 not rotating with the wheel hub (and as regards the sun gear 8, additionally), the examiner disagrees. Applicant's arguments are not entirely clear- when the motor is driving the wheel, the gears of the first gear set and planetary gear set, with the exception of gear 6, of course, all rotate with the rotary motion of the hub, otherwise no motion would be transmitted from the motor to the wheel.

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Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to F. Vanaman whose telephone number is 703-308-0424. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is 703-308-1113.

As of May 1, 2003, any response to this action should be mailed to:

Mail Stop _____
Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450,

Or faxed to one of the following fax servers:

Regular Communications/Amendments: 703-872-9326
After Final Amendments: 703-872-9327
Customer Service Communications: 703-872-9325

F. VANAMAN
Primary Examiner
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A handwritten signature in black ink, appearing to be 'F. Vanaman', with a date '1/20/04' written below it.